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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,551	06/24/2003	Thomas A. Makowski	5150-80201	1235

7590 10/16/2007

Jeffrey C. Hood
Meyertons, Hood, Kivlin,
Kowert & Goetzel PC
P.O. Box 398
Austin, TX 78767

EXAMINER	
DAO, THUY CHAN	

ART UNIT	PAPER NUMBER
2192	

MAIL DATE	DELIVERY MODE
10/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/602,551	MAKOWSKI ET AL.	
	Examiner	Art Unit	
	Thuy Dao	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 August 2007 and 19 July 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *43-68* is/are pending in the application.

4a) Of the above claim(s) *1-42* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *43-68* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 May 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on July 19 and August 6, 2007 has been entered.

2. Claims 43-68 have been examined.

Response to Amendments

3. Per Applicants' request, claims 1-42 have been canceled and claims 43-68 have been added (amendments filed July 19, 2007). In the supplemental amendments filed August 6, 2007, claims 43-44, 46-56, 58-60, and 62-68 have been amended.

Response to Arguments

4. The Applicants are thanked for a thorough reply. Applicants' arguments have been considered but are moot in view of the new ground(s) of rejection. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action.

Claim Objection

5. Claim 52 is objected to because of minor informalities. The phrase in line 3 is considered to read as - -displaying a node in a graphical program;- -.

Appropriate correction is required.

Claim Rejections – 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 43-68 are rejected under 35 U.S.C. 102(b) as being anticipated by Kudukoli (art of record, US Patent Publication No. 2001/0024211 A1).

Claim 43:

Kudukoli discloses *a computer-accessible memory medium that stores program instructions executable by a processor to perform:*

displaying a node in a graphical program (e.g., FIG. 13, displaying a new VI Object Reference Node in a VI graphical program, [0212-0221]; FIG. 25A, [0276-0279]);

receiving first user input invoking display of a plurality of functions for the node; displaying the plurality of functions for the node in response to the first user input (e.g., FIG. 13, VI object class; FIG. 21, displaying a plurality of functions in response to first user input invoking VI object class, [0215-0216);

receiving second user input selecting a function from the plurality of functions; determining graphical program code based on the second user input, wherein the determined graphical program code is executable to provide functionality in accordance with the selected function (e.g., FIG. 6, blocks 302-304, [0136-0140]; FIG. 22, receiving second user input invoking VI object style [0217-0221]; FIG. 4, [0100-0113]);

associating the determined graphical program code with the node, wherein, when the node in the graphical program executes, the determined graphical program code executes to provide the functionality in accordance with the selected function (e.g., FIG. 21, [0215-0216]; FIG. 6, blocks 306-308, [0141-0145]; FIG. 25A-D, [0280-0289]; associating functions in VI object class as Slide, VI object style as Vertical Pointer Slide with VI Object Reference Node and executing the functionalities in accordance with the selected functions).

Claim 44:

The rejection of claim 43 is incorporated. Kudukoli also discloses *the node has a first node icon which is displayed in the graphical program, and wherein the first node icon has a first appearance, wherein the program instructions are further executable to perform: changing the first node icon to a second appearance based on the second user input, wherein said changing the first node icon to a second appearance includes displaying an image corresponding to the selected function* (e.g., FIG. 22, [0217-0221]).

Claim 45:

The rejection of claim 43 is incorporated. Kudukoli also discloses *said changing the first node icon to a second appearance comprises replacing the first node icon with a second node icon* (e.g., FIG. 21, [0215-0216]).

Claim 46:

The rejection of claim 43 is incorporated. Kudukoli also discloses *prior to said associating the determined graphical program code with the node, the node does not have any associated graphical program code* (e.g., FIG. 13, new VI Object Reference Node, [0212-0215]).

Claim 47:

The rejection of claim 43 is incorporated. Kudukoli also discloses *prior to said associating the determined graphical program code with the node, the node has associated default graphical program code in accordance with a default function for the node, and wherein the default graphical program code implement a first functionality; and wherein said associating the determined graphical program code with the node comprises replacing the default graphical program code with the determined graphical program code* (e.g., FIG. 12, Open VI Object Reference Node, [0204-0211]).

Claim 48:

The rejection of claim 43 is incorporated. Kudukoli also discloses *said receiving first user input comprises receiving the first user input to the node; and wherein said*

receiving second user input comprises receiving the second user input to the node (e.g., FIG. 21, [0215-0216]; FIG. 22, [0217-0221]).

Claim 49:

The rejection of claim 43 is incorporated. Kudukoli also discloses *said displaying the plurality of functions for the node in response to the first user input comprises; displaying a plurality of function classes for the node; and in response to user input selecting a function class, displaying the plurality of functions, wherein the plurality of functions are in the selected function class* (e.g., FIG. 22, [0217-0221]).

Claim 50:

The rejection of claim 43 is incorporated. Kudukoli also discloses:

the node is a data acquisition (DAQ) node; wherein, prior to said associating, the DAQ node comprises one of: a generic read node; a generic write node; a generic channel creation node; a generic timing node; or a generic triggering node (e.g., FIG. 7, [0146-0147]); *and*

wherein, after said associating, the DAQ node comprises one of: a specific read node in accordance with the selected function; a specific write node in accordance with the selected function; a specific channel creation node in accordance with the selected function; a specific timing node in accordance with the selected function; or a specific triggering node in accordance with the selected function (e.g., FIG. 7, [0148-0149).

Claim 51:

The rejection of claim 43 is incorporated. Kudukoli also discloses *the node represents a subprogram, wherein the program instructions are further executable to perform: receiving user input invoking expansion of the node; and displaying the subprogram in response to said invoking* (e.g., [0217-0221]).

Claim 52:

Claim 52 recites the same limitations as those of claim 43, wherein all claimed limitations have been addressed and/or set forth above. Therefore, as the reference teaches all of the limitations of the above claim, it also teaches all of the limitations of claim 52.

Claim 53:

Kudukoli discloses *a computer-accessible memory medium that stores program instructions executable by a processor to perform:*

displaying a data acquisition node in a graphical program (e.g., FIG. 13, displaying a new VI Object Reference Node in a VI graphical program, [0212-0221]; FIG. 25A, [0276-0279]);

receiving first user input invoking display of a plurality of functions for the node; displaying the plurality of functions for the node in response to the first user input (e.g., FIG. 13, VI object class; FIG. 21, displaying a plurality of functions in response to first user input invoking VI object class, [0215-0216);

receiving second user input selecting a function from the plurality of functions; determining a second node based on the selected function, wherein the second node comprises graphical program code executable to provide functionality in accordance with the selected function (e.g., FIG. 6, blocks 302-304, [0136-0140]; FIG. 22, receiving second user input invoking VI object style [0217-0221]; FIG. 4, [0100-0113]);

replacing the node in the graphical program with the second node, wherein, when the second node in the graphical program executes, the determined graphical program code executes to provide the functionality in accordance with the selected function (e.g., FIG. 21, [0215-0216]; FIG. 6, blocks 306-308, [0141-0145]; FIG. 25A-D, [0280-0289]; associating functions in VI object class as Slide, VI object style as Vertical Pointer Slide with VI Object Reference Node and executing the functionalities in accordance with the selected functions).

Claim 54:

The rejection of claim 53 is incorporated. Kudukoli also discloses *the node comprises a first node icon, and wherein said displaying the node comprises displaying the first node icon, and wherein the second node comprises: the first node icon and the determined graphical program code; or a second node icon and the determined graphical program code* (e.g., [0217-0221; FIG. 25A, [0276-0279).

Claim 55:

The rejection of claim 53 is incorporated. Kudukoli also discloses *the node and/or the second node is one or more of: polymorphic; function switchable; or function class switchable* (e.g., [0280-0289]).

Claim 56:

The rejection of claim 53 is incorporated. Kudukoli also discloses:

the node is a data acquisition (DAQ) node; wherein the DAQ node comprises one of: a generic read node; a generic write node; a generic channel creation node; a generic timing node; or a generic triggering node (e.g., FIG. 4, [0100-0113]); *and*

wherein the second node comprises a corresponding one of: a specific read node in accordance with the selected function; a specific write node in accordance with the selected function; a specific channel creation node in accordance with the selected function; a specific timing node in accordance with the selected function; or a specific triggering node in accordance with the selected function (e.g., [0276-0289]).

Claim 57:

The rejection of claim 53 is incorporated. Kudukoli also discloses *the second node represents a subprogram, wherein the program instructions are further executable to perform: receiving user input invoking expansion of the second node; and displaying the subprogram in response to said invoking* (e.g., FIG. 21-22, [0215-0221]).

Claim 58:

Claim 58 recites the same limitations as those of claim 53, wherein all claimed limitations have been addressed and/or set forth above. Therefore, as the reference teaches all of the limitations of the above claim, it also teaches all of the limitations of claim 58.

Claim 59:

Kudukoli discloses *a computer-accessible memory medium that stores program instructions executable by a processor to perform:*

displaying a node in a graphical program, wherein the node has a first node icon which is displayed in the graphical program, and wherein the first node icon has a first appearance (e.g., FIG. 13, displaying a new VI Object Reference Node in a VI graphical program, [0212-0221]; FIG. 25A, [0276-0279]);

receiving user input specifying one or more inputs to the node; determining a function from a plurality of possible functions for the node based on the specified one or more inputs (e.g., FIG. 13, displaying a new VI Object Reference Node in a VI graphical program, [0212-0221]; FIG. 25A, [0276-0279]);

determining graphical program code based on the determined function, wherein the determined graphical program code is executable to provide functionality in accordance with the determined function (e.g., FIG. 6, blocks 302-304, [0136-0140]; FIG. 22, receiving second user input invoking VI object style [0217-0221]; FIG. 4, [0100-0113]);

associating the determined graphical program code with the node, wherein, when the node executes in the graphical program, the determined graphical program code is operable to execute to provide the functionality in accordance with the determined function (e.g., FIG. 21, [0215-0216]; FIG. 6, blocks 306-308, [0141-0145]; FIG. 25A-D, [0280-0289]; associating functions in VI object class as Slide, VI object style as Vertical Pointer Slide with VI Object Reference Node and executing the functionalities in accordance with the selected functions).

Claim 60:

The rejection of claim 59 is incorporated. Kudukoli also discloses *the node has a first node icon which is displayed in the graphical program, and wherein the first node icon has a first appearance, wherein the program instructions are further executable to perform: changing the first node icon to a second appearance based on the second user input, wherein said changing the first node icon to a second appearance includes displaying an image corresponding to the selected function* (e.g., [0136-0140], [0100-0113]).

Claim 61:

The rejection of claim 59 is incorporated. Kudukoli also discloses *said changing the first node icon to a second appearance comprises replacing the first node icon with a second node icon* (e.g., [0276-0279]).

Claim 62:

The rejection of claim 59 is incorporated. Kudukoli also discloses *prior to said associating the determined graphical program code with the node, the node does not have any associated graphical program code* (e.g., [0136-0145]).

Claim 63:

The rejection of claim 59 is incorporated. Kudukoli also discloses *prior to said associating the determined graphical program code with the node, the node has associated default graphical program code in accordance with a default function for the node, and wherein the default graphical program code implement a first functionality; and wherein said associating the determined graphical program code with the node comprises replacing the default graphical program code with the determined graphical program code* (e.g., FIG. 13, 21, 22 and related text, a VI Object Reference Node with VI object class and VI Object style with associated functionalities).

Claim 64:

The rejection of claim 59 is incorporated. Kudukoli also discloses:

the node is a data acquisition (DAQ) node; wherein, prior to said associating, the DAQ node comprises one of: a generic read node; a generic write node; a generic channel creation node; a generic timing node; or a generic triggering node (e.g., FIG. 7, [0146-0147]); *and wherein,*

after said associating, the DAQ node comprises one of: a specific read node in accordance with the selected function; a specific write node in accordance with the selected function; a specific channel creation node in accordance with the selected function; a specific timing node in accordance with the selected function; or a specific triggering node in accordance with the selected function (e.g., FIG. 7, [0148-0149]).

Claim 65:

The rejection of claim 59 is incorporated. Kudukoli also discloses *the node represents a subprogram, wherein the program instructions are further executable to perform: receiving user input invoking expansion of the node; and displaying the subprogram in response to said invoking* (e.g., [0141-0145]; [0100-0113]).

Claim 66:

Claim 66 recites the same limitations as those of claim 59, wherein all claimed limitations have been addressed and/or set forth above. Therefore, as the reference teaches all of the limitations of the above claim, it also teaches all of the limitations of claim 66.

Claim 67:

Kudukoli discloses *a computer-accessible memory medium that stores program instructions executable by a processor to perform:*

displaying a node in a graphical program, wherein the node has a first node icon which is displayed in the graphical program, and wherein the first node icon has a first appearance (e.g., FIG. 13, displaying a new VI Object Reference Node in a VI graphical program, [0212-0221]; FIG. 25A, [0276-0279]);

receiving user input specifying one or more inputs to the node; determining a function from a plurality of possible functions for the node based on the specified one or more inputs (e.g., FIG. 13, displaying a new VI Object Reference Node in a VI graphical program, [0212-0221]; FIG. 25A, [0276-0279]);

determining a second node based on the selected function, wherein the second node comprises graphical program code executable to provide functionality in accordance with the selected function (e.g., FIG. 6, blocks 302-304, [0136-0140]; FIG. 22, receiving second user input invoking VI object style [0217-0221]; FIG. 4, [0100-0113]);

replacing the node in the graphical program with the second node, wherein, when the second node in the graphical program executes, the determined graphical program code executes to provide the functionality in accordance with the selected function (e.g., FIG. 21, [0215-0216]; FIG. 6, blocks 306-308, [0141-0145]; FIG. 25A-D, [0280-0289]; associating functions in VI object class as Slide, VI object style as Vertical Pointer Slide with VI Object Reference Node and executing the functionalities in accordance with the selected functions).

Claim 68:

Claim 68 recites the same limitations as those of claim 67, wherein all claimed limitations have been addressed and/or set forth above. Therefore, as the reference teaches all of the limitations of the above claim, it also teaches all of the limitations of claim 68.

8. Claims 43, 52-53, 58-59, and 66-68 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,282,699 to Zhang et al. (art made of record, hereinafter "Zhang").

Claim 43:

Zhang discloses *a computer-accessible memory medium that stores program instructions executable by a processor to perform:*

displaying a node in a graphical program (e.g., FIG. 9, col.9: 34 – col.10: 23);

receiving first user input invoking display of a plurality of functions for the node; displaying the plurality of functions for the node in response to the first user input (e.g., FIG. 10-12, col.10: 24-51; col.16, Creating a HiQ Script);

receiving second user input selecting a function from the plurality of functions; determining graphical program code based on the second user input, wherein the determined graphical program code is executable to provide functionality in accordance with the selected function (e.g., FIG. 12-13, col.10: 24 – col.11: 51; col.17, Creating a MATLAB Script);

associating the determined graphical program code with the node, wherein, when the node in the graphical program executes, the determined graphical program code executes to provide the functionality in accordance with the selected function (e.g., FIG. 13-14, col.10: 53 – col.11: 56; col.18, Importing a Script).

Claim 52:

Claim 52 recites the same limitations as those of claim 43, wherein all claimed limitations have been addressed and/or set forth above. Therefore, as the reference teaches all of the limitations of the above claim, it also teaches all of the limitations of claim 52.

Claim 53:

Zhang discloses *a computer-accessible memory medium that stores program instructions executable by a processor to perform:*

displaying a data acquisition node in a graphical program (e.g., FIG. 9, col.9: 34 – col.10: 23);

receiving first user input invoking display of a plurality of functions for the node; displaying the plurality of functions for the node in response to the first user input (e.g., FIG. 10-12, col.10: 24-51; col.16, Creating a HiQ Script);

receiving second user input selecting a function from the plurality of functions; determining a second node based on the selected function, wherein the second node comprises graphical program code executable to provide functionality in accordance with the selected function (e.g., FIG. 12-13, col.10: 24 – col.11: 51; col.17, Creating a MATLAB Script);

replacing the node in the graphical program with the second node, wherein, when the second node in the graphical program executes, the determined graphical program code executes to provide the functionality in accordance with the selected function (e.g., FIG. 13-14, col.10: 53 – col.11: 56; col.18, Importing a Script).

Claim 58:

Claim 58 recites the same limitations as those of claim 53, wherein all claimed limitations have been addressed and/or set forth above. Therefore, as the reference teaches all of the limitations of the above claim, it also teaches all of the limitations of claim 58.

Claim 59:

Zhang discloses *a computer-accessible memory medium that stores program instructions executable by a processor to perform:*

displaying a node in a graphical program, wherein the node has a first node icon which is displayed in the graphical program, and wherein the first node icon has a first appearance (e.g., FIG. 9, col.9: 34 – col.10: 23);

receiving user input specifying one or more inputs to the node; determining a function from a plurality of possible functions for the node based on the specified one or more inputs (e.g., FIG. 10-12, col.10: 24-51; col.16, Creating a HiQ Script);

determining graphical program code based on the determined function, wherein the determined graphical program code is executable to provide functionality in accordance with the determined function (e.g., FIG. 12-13, col.10: 24 – col.11: 51; col.17, Creating a MATLAB Script);

associating the determined graphical program code with the node, wherein, when the node executes in the graphical program, the determined graphical program code is operable to execute to provide the functionality in accordance with the determined function (e.g., FIG. 13-14, col.10: 53 – col.11: 56; col.18, Importing a Script).

Claim 66:

Claim 66 recites the same limitations as those of claim 59, wherein all claimed limitations have been addressed and/or set forth above. Therefore, as the reference teaches all of the limitations of the above claim, it also teaches all of the limitations of claim 66.

Claim 67:

Zhang discloses *a computer-accessible memory medium that stores program instructions executable by a processor to perform:*

displaying a node in a graphical program, wherein the node has a first node icon which is displayed in the graphical program, and wherein the first node icon has a first appearance (e.g., FIG. 9, col.9: 34 – col.10: 23);

receiving user input specifying one or more inputs to the node; determining a function from a plurality of possible functions for the node based on the specified one or more inputs (e.g., FIG. 10-12, col.10: 24-51; col.16, Creating a HiQ Script);

determining a second node based on the selected function, wherein the second node comprises graphical program code executable to provide functionality in accordance with the selected function (e.g., FIG. 12-13, col.10: 24 – col.11: 51; col.17, Creating a MATLAB Script);

replacing the node in the graphical program with the second node, wherein, when the second node in the graphical program executes, the determined graphical program code executes to provide the functionality in accordance with the selected function (e.g., FIG. 13-14, col.10: 53 – col.11: 56; col.18, Importing a Script).

Claim 68:

Claim 68 recites the same limitations as those of claim 67, wherein all claimed limitations have been addressed and/or set forth above. Therefore, as the reference teaches all of the limitations of the above claim, it also teaches all of the limitations of claim 68.

Conclusion

8. Any inquiry concerning this communication should be directed to examiner Thuy Dao (Twee), whose telephone is (571) 272 8570. The examiner can normally be reached on every Tuesday, Thursday, and Friday from 6:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached at (571) 272 3695.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T. Dao

TUAN DAM
SUPERVISORY PATENT EXAMINER